

IN THE CLAIMS:

Please cancel claims 1-12 without prejudice to or disclaimer of the subject matter recited therein.

Please add new claims 13-24 as follows:

LISTING OF CURRENT CLAIMS

1-12. (Canceled)

13. (New) An apparatus for sealing a vacuum chamber comprising:

a frame elevator connected to first ends of a plurality of guide stems;

a plurality of first stroke cylinders having a plurality of first piston rods connected to the frame elevator for moving the frame elevator;

5 a support frame fixedly connected to second ends of the guide stems and pivotally connected with a plurality of levers;

at least one second stroke cylinder mounted in the frame elevator, the second stroke cylinder having a second piston rod that moves parallel to the guide stems, the second piston rod passing into the support frame to control the plurality
10 of levers;

a connecting rod movably located within the support frame;

a transmitting rod connecting the plurality of levers and a middle of the connecting rod;

a plurality of direction-changing mechanisms pivotally connected to opposing
15 ends of the connecting rod; and

a door pivotally connected to the direction-changing mechanisms;

such that, when the second piston rod of the second stroke cylinder moves the plurality of levers, the transmitting rod and the connecting rod, the door is moved linearly in a direction perpendicular with the second piston rod.

14. (New) The apparatus according to claim 13, wherein each direction-changing mechanism comprises a sliding block, a support block and a mounting block, the mounting block is connected with the door, a first end of the sliding block is pivotally connected to the connecting rod by a pivot axis, the pivot axis passing through a corresponding narrow opening of the support frame, a second end of the sliding block is pivotally connected to the mounting block, and the support block is pivotally connected to a middle of the slide block and the support frame.

15. (New) The apparatus according to claim 13, wherein the support frame includes a fixed across bar pivoting with the plurality of levers.

16. (New) The apparatus according to claim 13, further comprising a ring cushion located on the door.

17. (New) The apparatus according to claim 13, further comprising a push rod and two second transmitting rods, the second transmitting rods are pivotally connected between the push rod and the plurality of levers, the second piston rod is pivotally connected to a middle of the push rod.

18. (New) An apparatus for sealing a vacuum chamber comprising:
a flat shell having an opening;
a door movably located in the flat shell;
a plurality of direction-changing mechanisms located on the door;
5 an elevating mechanism located on the flat shell for moving the door, the elevating mechanism comprising a plurality of first stroke cylinders having a plurality of first rods; and

10 a sealing mechanism controlling the direction-changing mechanism to seal the door in the opening, the sealing mechanism comprising a frame elevator, a support frame, a guide stem and a second stroke cylinder, the guide stem fixedly connecting with the frame elevator and the support frame, the second stroke cylinder mounted in the frame elevator, the second stroke cylinder having a second piston rod that moves parallel to the first rods.

19. (New) The apparatus according to claim 18, wherein the shell has a guide plate, the guide stem and the second piston rod are inserted through the guide plate.

20. (New) The apparatus according to claim 18, wherein each direction-changing mechanism includes a sliding block, a support block and a mounting block, the sealing mechanism includes a connecting rod, the mounting block is mounted on the door, a first end of the sliding block is pivotally connected to the connecting rod by a pivot axis, a second end of the sliding block is pivotally connected to the mounting block, the support block is pivotally connected to a middle of the slide block and the support frame.

21. (New) The apparatus according to claim 20, wherein the support frame has a plurality of narrow openings to provide moving spaces for pivot axis at the first end of the sliding block.

22. (New) The apparatus according to claim 18, wherein the support frame includes a fixed across bar.

23. (New) The apparatus according to claim 18, further comprising a ring cushion on the door.

24. (New) The apparatus according to claim 18, wherein the sealing mechanism includes a lever, a push rod and two second transmitting rods, the two second transmitting rods are pivotally connected between the push rod and the lever, a middle of the push rod is pivotally connected to the second piston rod.